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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,032	11/15/2001	Adolf Zajber	HM-450	1209

7590 04/09/2004

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EXAMINER

LIN, KUANG Y

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 04/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

**Office Action Summary**

Application No.

10/003,032

Applicant(s)

ZAJBER ET AL.

Examiner

Kuang Y. Lin

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-6 and 8-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 8-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1, 3-6, and 8-10 are again rejected under 35 U.S.C. 103(a) as being unpatentable over JP 56-80,364 and further in view of Behrends for the same reasons as set forth in last office action.

Namely, JP '364 substantially shows the invention as claimed except the flexible steel bands. However, Behrends shows the use of a flexible spine 40 for connecting the blocks 46 to form a starter bar. The starter bar of Behrends combines the advantage of flexible starter bars and rigid starter bar in that a minimum of space and labour is required to store the starter bar after it has been severed from the cast strand and the starter bar is self-supporting in the curved configuration and therefore does not require support rolls. Also, because the

starter bar does not have any conventional pin connections, problem of wear and link binding are also avoided, less maintenance is required and costs of operation decreased (see col. 6, line 38+). It would have been obvious to provide the flexible spine of Behrends for connecting the blocks of JP '364 in view of the advantage. With respect to the casting having an I-shape or H-shape as claimed, the cross-sectional shape of the cast strand depends on the designated product to be obtained. With respect to claim 3, Behrends teaches to make the flexible spine of a high strength material with high fatigue resistance. Thus, it would have been obvious to use any alloy steel which is high strength and fatigue resistance for making the spine. Further, it is conventional to provide a recess in the starter head for connecting the same to the strand (see, for example, Kuttner). With respect to claim 5, the claimed structure is also deemed to be conventional (see, for example, Knell et al). With respect to claim 6, the pin and hole in the blocks of Behrends is functionally equivalent to the key and the slot, respectively as claimed. With respect to claims 7 and 8, it would have been obvious to make the blocks of conventional starter bar with any configuration as long as the structure has the required strength. In regard to the claimed feature that the segments being beveled so as to downwardly recede at oppositely located surfaces of the two rows of segments, the detail segments structure depends on the shape of the starter head which in turn depends on the mold cavity configuration. Thus, it would have been obvious to those of ordinary skill

in the casting art to shape the configuration of the segments according to the shape of the mold cavity.

3. Applicant's arguments filed Feb. 25, 2004 have been fully considered but they are not persuasive.

In page 8 of the remarks applicant stated that in Behrends due to the large number of spines and their associated connection components there are a great many sources for failure or other mechanical problems as compared with a construction having continuous bands of the instant invention. However, it is not clear what the source of failure and other mechanical problems are referred to. Further, there is no description in the body of instant specification the importance of the continuous bands. Thus, the use of a one piece construction instead of multiple piece of making a structural elements would have been merely a matter of obvious engineering choice. In re Larson, 144 USPQ 347. Further, the mere fact that a given structure is integral does not preclude its consisting of various elements. Nerwin v. Erlichman, 168 USPQ 177, 179.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuang Y. Lin whose telephone number is 571-272-1179. The examiner can normally be reached on Monday-Friday, 10:00-6:30,.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas X Dunn can be reached on 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kuang Y. Lin  
Primary Examiner  
Art Unit 1725

4-5-04